



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/801,773	03/09/2001	Osamu Kuroda	Q61192	4550

7590

06/12/2002

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3202

EXAMINER

LEE, SHUN K

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 06/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/801,773

Applicant(s)

KURODA ET AL.

Examiner

Shun Lee

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 29C (Fig. 16). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because of the language. Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities:

(a) in line 18 on pg. 11, "14" should probably be --11--;

Art Unit: 2878

- (b) in line 20 on pg. 14, "P" should probably be --P1--;
- (c) in line 26 on pg. 16, "20B" should probably be --21B--; and
- (d) in line 4 on pg. 17, "20A" should probably be --21A--.

Appropriate correction is required.

- 5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

- 6. Claim 1 is objected to because of the following informalities: on line 19 in claim 1, "photelectrically" should probably be --photoelectrically--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

- 7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 8. Claims 4-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- 9. Claim 4 recites the limitation "said horizontal scanning direction" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 4, and 8/4 are rejected under 35 U.S.C. 102(b) as being anticipated by Newman *et al.* (US 5,420,441).

In regard to claim 1, Newman *et al.* disclose (column 1, line 13 to column 2, line 16) a method of inspecting influence of stray light (*i.e.*, scatter or flare artifacts) which occurs in a radiation image reader equipped with horizontal scanning means for scanning excitation light on a storable fluorescent sheet, having stored and recorded a radiation image, in a horizontal scanning direction, vertical scanning means for scanning said storable fluorescent sheet in a vertical scanning direction approximately perpendicular to said horizontal scanning direction, and reading means for obtaining an image signal which represents said radiation image by photoelectrically reading said radiation image, stored and recorded in said storable fluorescent sheet, by the horizontal scanning of said excitation light; said inspection method comprising the steps of:

(a) preparing (column 2, lines 52-55) a storable fluorescent inspection sheet that has stored and recorded a radiation inspection image which has a density pattern in which one or more low-density and high-density regions having a contrast

difference of at least 1:20 (*i.e.*, cascading six lead masks with each 0.05 mm lead layer resulting in a roughly 30% x-ray modulation depth; column 6, lines 54-66; thus providing transmissions ranging from 1 to 0.03; column 8, lines 39-40) are arrayed in said horizontal scanning direction;

(b) obtaining (column 2, lines 56-58) an image inspection signal representing said radiation inspection image, by photoelectrically reading said radiation inspection image from said storable fluorescent inspection sheet with said reading means; and

(c) inspecting (column 2, lines 59-60) said influence of stray light, based on an image reproduced from said image inspection signal.

In regard to claim 4, Newman *et al.* disclose (column 7, lines 42-47; Fig. 6) a storable fluorescent inspection sheet (106) having stored and recorded a radiation inspection image that has a density pattern in which one or more low-density and high-density regions having a contrast difference of at least 1:20 (*i.e.*, cascading six lead masks with each 0.05 mm lead layer resulting in a roughly 30% x-ray modulation depth; column 6, lines 54-66; thus providing transmissions ranging from 1 to 0.03; column 8, lines 39-40) are arrayed in a horizontal scanning direction.

In regard to claim 8 which is dependent on claim 4, Newman *et al.* disclose (column 6, lines 57-63; column 7, lines 42-47; Fig. 6) disposing a radiation transmittable member (104) at a position corresponding to said density pattern on a storable fluorescent sheet (106), the radiation transmittable member (104) having a radiation transmission factor which corresponds to said contrast difference; and storing and

Art Unit: 2878

recording said radiation inspection image in said storable fluorescent sheet (106), by illuminating said storable fluorescent sheet (106), on which said radiation transmittable member (104) has been disposed, with a dose of radiation that corresponds to said contrast difference.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 2, 3, 5, 6, 8/5, and 8/6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newman *et al.* (US 5,420,441) in view of Grillet (US 5,591,968).

In regard to claims 2 and 3 which are dependent on claim 1, the method of Newman *et al.* lacks that a boundary line, in said radiation inspection image, between

Art Unit: 2878

said low-density and high-density regions is constructed by a straight line and is inclined with respect to said horizontal scanning direction so that it intersects both edges of said radiation inspection image which extend in said vertical scanning direction and that said density pattern in said radiation inspection image includes two high-density regions and one low-density region, said regions being arrayed in said horizontal scanning direction in the order of one high-density region, the low-density region, and the other high-density region. Test targets are well known in the art. For example, Grillet teaches (column 4, lines 33-44; column 5, lines 19-31) that a "Mire" pattern of the type specified in German Industrial Standard (DIN) 19051 comprises lines at various angles (see Fig. 4) to the direction A (in Fig. 2) in order to test a device for scanning a photostimulable phosphor film (column 1, lines 8-11). Therefore it would be obvious to one of ordinary skill to provide lines at various angles (*i.e.*, a low-density line in a high-density region extending to the radiation inspection image edge) in the method of Newman *et al.*, in order to test a device for scanning a photostimulable phosphor film.

In regard to claims 5 and 6 which are dependent on claim 4, Newman *et al.* in view of Grillet is applied as in claims 2 and 3 above.

In regard to claim 8 which is dependent on either claim 5 or claim 6, Newman *et al.* is applied as in claim 8 above.

Allowable Subject Matter

15. Claim 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Art Unit: 2878

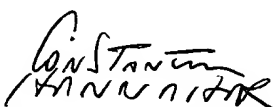
16. The following is a statement of reasons for the indication of allowable subject matter: prior art does not disclose repeating the disposition of a radiation shielding member on a storable fluorescent sheet and the illumination with a radiation dose that corresponds to a contrast difference, until a density pattern is obtained.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (703) 308-4860. The examiner can normally be reached on Tuesday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (703) 308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


CONSTANTINE HANNAHER
PRIMARY EXAMINER
GROUP ART UNIT 2878

SL
June 7, 2002